

AMENDMENT TO THE SPECIFICATION:

Please amend the Specification as follows:

On Page 1, amend the "Related Cases" data as follows:

RELATED CASES

This Application is a Continuation-in-Part of Application No. 09/641,908, filed August 18, 2000, now abandoned; which is a Continuation-in-Part of copending Application No. 09/599,690 filed June 22, 2000, now abandoned; which is a Continuation-in-Part of copending Application No. 09/483,105, filed January 14, 2000, now abandoned; copending Application No. 09/465,859 filed December 17, 1999, now abandoned; which is a Continuation-in-Part of copending Application No. 09/447,121 filed November 22, 1999, now US Patent No. 6,625,581; copending Application 09/441,973 filed November 17, 1999, now US Patent No. 6,961,712; which is a Continuation-in-Part of copending Application Serial No. 09/284,197 09/284,917, now abandoned, which was entered into the U.S. on April 21, 1999 ~~which is as~~ a National Stage Entry Application from International Application No. PCT/US97/19227 filed October 27, 1997, published as WIPO Publication No. WO 98/19259 on May 7, 1998; as well as a Continuation-in-Part of the following U.S. Applications: No. 08/736,798, now U.S. Letters Patent No. 5,918,214, filed October 25, 1996, No. 08/752,136, now U.S. Letters Patent No. 6,064,979, filed November 19, 1996; No. 08/826,120 filed March 27, 1997; No. 08/854,877 filed May 12, 1997, now U.S. Letters Patent 5,950,173; No. 08/871,815 filed June 9, 1997; and No. 08/936,375 filed September 24, 1997, now abandoned; each said Application is commonly owned by IPF, Inc., and is incorporated herein by reference in its entirety as if fully set forth herein.

On Page 2, amend the first and second paragraphs as follows:

Brief Description of the Prior Art

Presently, an enormous amount of time, money and effort is expended daily by thousands of manufacturers and retailers to market, brand, advertise and sell their products and services to consumers in both regional and global markets. Prior to the creation of the World Wide Web (WWW), based on the Hypertext Markup Language (HTML) and the Hypertext Transmission Protocol (HTTP) invented by Tim Berners-Lee, et al., conventional marketing and advertising

systems and methods used in print, radio, and television based communication mediums to communicate messages to consumers in the marketplace.

Since the development of the WWW and its enabling information file formats and communication protocols, a number of Internet-based advertising systems and networks have been developed and deployed in the world of consumer product and service advertising and promotion. Examples of commercially-available Internet-based advertising and promotion systems include: the Open Ad Stream™ (5.0) Internet Advertising Sales, Advertising-Management Software Technology And Media Services Network by RealMedia, Inc. (<http://www.realmedia.com>); the DoubleClick™ Internet Advertising Sales, Advertising-Management And Media Services Network by DoubleClick, Inc. (<http://www.doubleclick.com>) which employ its proprietary DART™ technology for collecting and analyzing audience behavior, predicting which ads will be most effective, measures ad effectiveness, and providing data for Web publishers and advertisers; the Adfusion™ Integrated Advertising Marketing, Sales and Management System by Adfusion, Inc. (<http://www.adfusion.com>) which integrates all phases of the media buying process including media research and planning, media inventory and yield management, secure online negotiation, the transaction execution, and tracking and post-campaign reporting; and the Promotions.com™ On-Line Promotion System by Promotions.com, Inc. (<http://www.promotions.com>) formerly Webstakes.com, which develops customized online promotions for clients providing technology and consulting services necessary to run the promotions on clients' own Web sites, and offering direct marketing e-mail services using a database of customer profiles.

On Page 3, amend the 2nd and 4th paragraphs as follows:

US Patent No. 5,640,193 to Wellner discloses a system and method for accessing and displaying Web-based consumer product related information to consumers using a Internet-enabled computer system, whereby in response to reading a URL-encoded bar code symbol on or associated with a product, the information resource specified by the URL is automatically accessed and displayed on the Internet-enabled computer system. Current commercial realizations of this general information access technique include the GoCode™ Print-to-Web Information Access System by GoCode, Inc. of Charleston, South Carolina (<http://www.gocode.com>). While this system and method enables access of consumer product

information related information resources on the WWW by reading URL-encoded bar code symbols, it requires that custom URL-encoded bar code symbols be created, printed and applied to each and every physical product in the stream of commerce.

Like US Patent No. 5,978,773 to Hudetz, et al, WIPO Publication No. WO 98/03923 discloses the use of a UPC/URL database in order to translate UPC numbers read from consumer products by a bar code scanner, into the URLs of published information resources on the WWW relating to the UPC-labeled consumer product. Current commercial realizations of this general information access technique include: the PaperClick™ Print-To-Web Information Access System by Neomedia Technologies, Inc., of Fort Meyers, Florida (<http://www.paperclick.com>); the AirClic™ Wireless Print-to-Web Media Consumer Product and Service Information Access System by Airclie, Inc. of Blue Bell, Pennsylvania (<http://www.airclie.com>); the Cue-Cat™ Web-based Print-to-Media Product Information Access System by DigitalConvergence, Inc., of Dallas, Texas (<http://www.digitalconvergence.com>); the Qode™ Wireless Print-to-Web Media Consumer Product Information Access System by Qode.Com, Inc. of Fort Lauderdale, Florida (<http://www.qode.com>); et al.

On Page 4, amend the 2nd paragraph as follows:

For over a decade, several years before the development of the WWW, both General Electric Information Services (GEIS) division of General Electric (GE) Corporation, and Quick Response Services (QRS), Inc. have maintained independent consumer product information databases based on the retail industry standard Universal Product Code (UPC) numbering system. These consumer product information databases, branded as the GEIS UPC Express® [UPC] Product Catalog (recently renamed the GPC Express™ UPC Product Catalog), and the QRS Keystone™ UPC Product Catalog, are maintained in large-scale RDBMS that are connected to secure value-added networks, referred to as VANs, as well as the infrastructure of the Internet, and thus are easily accessible by retailers using Internet-enabled client computers. These UPC Product Catalogs contain "supply-side related" information records on millions of consumer products from thousands of manufacturers selling their products to retailers along the retail chain, at wholesale prices, terms and conditions. The supply-side related information contained in these centralized UPC Product Catalogs are locally maintained by the manufacturers (i.e.

vendors) using conventional UPC management software, as developed by Intercoastal Data Corporation (IDC) of Carrollton, Georgia, and BarCode World, Inc. These manufacturer-managed UPC Product Catalogs are then periodically uploaded to GEIS's and/or QRS's centralized UPC Product Catalogs, using electronic data interchange (EDI) processes carried out between each manufacturer's UPC Product Catalog and the centralized UPC Product Catalog. The purpose of such uploading operations is to update these centralized UPC Product Catalogs with current and accurate pricing and shipping information required by retailers who visit these centralized UPC Product Catalogs, download the UPC Product Catalogs of their manufacturer trading partners (or portions thereof), to review current product offerings and wholesale prices, terms and conditions, and thereafter purchase desired products from the downloaded manufacturer's UPC Product Catalog using conventional EDI-enabled electronic-commerce (EC) transaction techniques. In essence, the primary function of these centralized UPC Product Catalogs is to enable B-2-B EC transactions between retailers and manufacturers (i.e. vendors) so that retailers can maintain a supply of products in their inventories sufficient to meet the demand for such products by consumers along the retail chain.

On Page 8, amend the first paragraph as follows:

A further object of the present invention is to provide an Internet-based ~~System~~ system wherein: (1) manufacturers and their agents are enabled to simply link (i.e. relate), manage and update within a centralized database, the UPC (and/or UPC/EAN) numbers on their products and the Uniform Resource Locators (URLs) of HTTP-encoded document (i.e. Web pages) containing particular kinds of consumer product-related information published on the Internet by the manufacturers, their agents and/or third parties; and (2) consumers, in retail stores, at home, in the office and on the road, are enabled to simply access such consumer product-related information using such UPC (and/or UPC/EAN) numbers and/or by scanning UPC (or UPC/EAN) bar code symbols encoded with such product identification numbers.

On Page 10, amend the last paragraph as follows:

Another object of the present invention is to provide an Internet-based consumer product information collection, managing and delivery system and method, wherein for each consumer product registered within the UPN/TM/PD/URL database of the system, there is created and

stored, an interactive consumer product information request (CPIR) enabling Applet (e.g. based on Java™ component principles or Microsoft's Active-X technology) which, when executed upon the initiation of by the consumer through a mouse-clicking operation, automatically causes a preassigned CPID-enabling Java GUI to be displayed at the consumer's point of presence in Cyberspace, revealing the results of a consumer product information search conducted upon the product identified by the UPN encoded within the executed Applet.

On Page 20, amend the last paragraph as follows:

Another object of the present invention is to provide an Internet-based consumer product marketing, merchandising and education/information system, wherein an Internet-Based Consumer Product Advertisement Marketing, Programming, Management and Delivery System enables advertisers (e.g. employed by a particular manufacturer or retailer or working as an advertising agent therefor) to perform a number of functions, namely: (i) register with the system; (ii) log onto the Advertisement Slot Marketing/Sales/Management Web Site (~~e.g. at <http://www.brandkeydisplay.com>~~) maintained by the system administrator or its designated agent; (iii) view catalogs of physical and/or virtual CPI kiosks deployed within retail shopping environments by retailers, at which a registered advertiser can consider purchasing advertisement slots on manufacturer/retailer authorized kiosks (e.g. at a price set by the user activity characteristics of the kiosk periodically measured by the http and/or Applet server enabling the same); (iv) purchase advertisement slots on manufacturer/retailer authorized physical or virtual CPI kiosks deployed in physical or electronic retail shopping space; (v) create, deploy and manage advertising campaigns over one or more physical and/or virtual kiosks deployed by retailers in retail space; and (vi) monitor the performance of kiosk-based advertising campaigns during execution, as required by client demands and prevailing business considerations, using any Web-enabled client subsystem.

On page 21, amend the second paragraph as follows:

Another object of the present invention is to provide an Internet-based consumer product marketing, merchandising and education/information system, wherein an Internet-Based Consumer Product Promotion Marketing, Programming, Management and Delivery System

enables promoters (e.g. employed by a particular retailer or manufacturer or working as an promotional agent therefor) to perform a number of functions, namely: (i) register with system; (ii) log onto the Promotion Slot Marketing/Sales/Management Web Site (~~e.g. at <http://www.brandkeypromote.com>~~) maintained by the system administrator or its designated agent; (iii) view catalogs of physical and/or virtual CPI kiosks deployed within retail shopping environments by retailers, at which a registered promoter can consider purchasing or otherwise acquiring promotion slots on manufacturer/retailer authorized kiosks (e.g. at a price set by the user activity characteristics of the kiosk periodically measured by the http and/or Applet server enabling the same); (iv) purchase or otherwise acquire (product sales) promotion slots on manufacturer/retailer authorized physical or virtual kiosks deployed in retail shopping space; (v) create, deploy and manage product promotion campaigns over one or more physical and/or virtual kiosks deployed by retailers (or manufacturers) in retail space; and (vi) monitor the performance of kiosk-based promotion campaigns as required by client demands and prevailing business considerations, using any Web-enabled client subsystem.

On Page 41, amend the last paragraph as follows:

Another object of the present invention is to provide an Internet-Based Consumer Product Advertisement Marketing, Programming, Management and Delivery System enables advertisers (e.g. employed by a particular manufacturer or retailer or working as an advertising agent therefor) to perform a number of functions, namely: (i) register with the system; (ii) log onto the Advertisement Slot Marketing/Sales/Management Web Site (~~e.g. at <http://www.brandkeydisplay.com>~~) maintained by the system administrator or its designated agent; (iii) view catalogs of physical and/or virtual CPI kiosks deployed within retail shopping environments by retailers, at which a registered advertiser can consider purchasing advertisement slots on manufacturer/retailer authorized kiosks (e.g. at a price set by the user activity characteristics of the kiosk periodically measured by the http and/or Applet server enabling the same); (iv) purchase advertisement slots on manufacturer/retailer authorized physical or virtual) CPI kiosks deployed in physical or electronic retail shopping space; (v) create, deploy and manage advertising campaigns over one or more physical and/or virtual kiosks deployed by retailers in retail space; and (vi) monitor the performance of kiosk-based advertising campaigns

during execution, as required by client demands and prevailing business considerations, using any Web-enabled client subsystem.

On Page 54, amend the second paragraph as follows:

Fig. 2A' 2A' is a schematic diagram illustrating the flow of information along the consumer-product supply and demand chain, similar to that shown in Fig. 2A, except that as shown in Fig. 2A' 2A', each manufacturer transmits to the UPN/TM/PD/URL RDBMS (realized as a massive data warehouse) one or more information resource files (IRFs) which are symbolically linked to particular UPN-encoded product, and that each IRF is then stored as a Web-based document on an Internet information server at predesignated URL, symbolically linked to the UPN, so that consumers can use the UPN to access a menu of URLs symbolically linked thereto for display of the corresponding Web-documents;

On Page 58, amend the first and third paragraphs as follows:

Fig. 3A3' 3A3' is a graphical representation of the bar code driven multi-media kiosk shown in Fig. 3A3, wherein the laser scanning projection-type bar code symbol reader is removed from its support stand, by pulling its connector cable out of its cable take-up unit, and used to read a bar code symbol on product located a relatively short distance away from the kiosk.

Fig. 3A4' 3A4' is a graphical representation of the bar code driven multi-media kiosk shown in Fig. 3A4, wherein the laser scanning projection-type bar code symbol reader is removed from its support stand and used to read a bar code symbol on a product located a relatively short distance away from the kiosk.

On Page 60, delete the third and last paragraphs, and amend paragraphs 4 through 6 as follows:

Fig. 3A16 is a schematic representation of an exemplary graphical user interface (GUI) displayed on the bar code driven consumer product information kiosk of the present invention when the CPI transport service of Figs. 3A15A through 3A15C is performed.

Fig. 3A17 3A16 is a schematic representation of the consumer product promotion/advertisement delivery subsystem of the present invention, which is integrated within the overall infrastructure of the high-level system depicted in Figs. 2-1 and 2-2, and enables the management of Web-based consumer product advertisements created by manufacturers, agents thereof and also retailers alike, and delivery of the same to consumers within physical retail environments using wireless Web-based product promotion/advertising kiosks connected to a TCP/IP-based information network installed therewithin in order to deliver such product advertisements to retail shopping environments from various Internet information servers connected to the infrastructure of the Internet.

Fig. 3A18 3A17 is a schematic representation of the consumer product promotion/advertisement delivery subsystem of Fig. 3A17 3A16, wherein each retailer-operated Web-based product promotion kiosk on the information network simultaneously displays (i) a product advertisement, (ii) a promotion message related to the advertised product and (iii) the instructions on where to find the advertised product in the shopping environment in accordance with an preprogrammed product advertisement schedule managed by the retailer or agent thereof using a retailer-operated administration computer (i.e. client machine).

Fig. 3A19A 3A18A is a schematic representation of a database of URLS associated with consumer product advertisements that are symbolically linked to UPNs of consumer products offered for sale in retail shopping environments and which are advertised on Web-based product promotion kiosks installed within the given retail shopping environment.

~~Fig. 3A19B is a schematic representation of a database of information resource files (IRFs) corresponding to consumer product advertisements that are symbolically linked to the UPNs of consumer products offered for sale in retail shopping environments and which are advertised on Web-based product promotion kiosks installed within the given retail shopping environment.~~

On Page 61, amend all paragraphs as follows:

Fig. 3A19C 3A18B is a schematic representation of one of the Web-based promotion kiosks installed within the retail shopping LAN of Figs. 3A16 and 3A17 Fig. 3A16, wherein integrated CCD sensors are provided for automatically capturing images of scenery with the field

of view of the kiosk and processing the same to detect the presence of human eyes glazing at the display surface of the kiosk, and wherein each detected pair of eyes is symbolically linked with the UPN of the consumer product being promoted by the kiosk at the time of eye-gaze detection, for subsequent comparison with data collected at retail-based POS stations during the purchase of UPN-labeled products within the retail store on the same date as the promotion of the UPN-labeled product on the product promotion kiosk.

Fig. ~~3A19D~~ 3A18C is a schematic block diagram of the Web-based product promotion kiosk schematically depicted in Fig. ~~3A19C~~ 3A18B, showing the various subsystem and subcomponents employed therewithin which collectively enable the various functionalities of the kiosk.

Fig. ~~3A20~~ 3A19 is a schematic representation of an exemplary consumer product promotion/advertisement delivery subsystem of Figs. ~~3A17 and 3A18~~ 3A16 and 3A17, installed within an exemplary retail shopping network, wherein the retailer-operated administration computer system can be used by retailer management to schedule specific product advertisements and promotions throughout particular retail stores.

Fig. ~~3A21A~~ 3A20 is a schematic representation of an exemplary frame-work style browser GUI, displayed on each Web-based product promotion kiosk of Fig. ~~3A19C~~ 3A18B, and comprising (i) a display frame for displaying the retailer's identity/image, typically set by the retailer or agent thereof, (ii) a display frame for displaying an advertisement of a particular UPN-labeled product registered with the subsystem, typically set by the product manufacturer and/or agent thereof, (iii) a display frame for displaying a promotional message about the advertised product, typically set by the retailer, and (iv) a display frame for displaying the location of the advertised product in the physical retail store or within the retailer's EC-enabled store (e.g. made accessible within the retail store), and typically set by the retailer, as shown in Fig. ~~3A23~~.

Figs. ~~3A22A and 3A22B~~ 3A21A and 3A21B, taken collectively, set forth a flow chart describing the steps involved in installing and configuring the consumer product promotion/advertisement delivery subsystem of Figs. ~~3A17 and 3A18~~ 3A16 and 3A17 for operation within an exemplary retail shopping environment.

Fig. ~~3A23~~ 3A22 is a schematic representation of a Product Promotion Programming Table for an arrangement of product promotion kiosks within a particular retail store, set by a

retail manager or administrator using a Web-based client computer located within a particular retail store or some remote location (e.g. retailer's corporate headquarter, branch sales office, etc.), so that particular Web-based product promotion kiosks within the subsystem will display particular advertisements and promotions in accordance with a schedule designed to maximize sales of particular products within a particular retail store.

On Page 62, amend the first paragraph as follows:

Fig. 3A24 ~~3A23~~ is a schematic representation of an exemplary product promotion performance report produced by the consumer product promotion/advertisement delivery subsystem of Figs. 3A17 and 3A18 in order to inform retail management how many shoppers on a given day within a particular retail shopping environment gazed at a particular product advertisement/promotion and actually purchased the advertised product within the retail store, either at a physical POS station or consumer product information kiosk therewithin (as shown in Figs. 3A2 through 3A8).

On Page 66, amend the second and last paragraphs as follows:

Figs. 4Q1 and 4Q2 set forth graphical illustrations of Internet browser display screens that might be displayed on a client computer subsystem hereof while visiting an on-line EC-enabled auction site (e.g. at <http://www.ebay.com>) when considering whether or not to place a bid on a particular consumer product displayed within the auction listings thereof, and then launching a CPI search enabling GUI in accordance with the principles of the present invention by clicking on the HTML tag of a URL-encoded client-side or server-side Applet embedded within the HTML code of the displayed on-line auction Web page.

Figs. 4T1 and 4T2 set forth graphical illustrations of Internet browser display screens that might be displayed on a client computer subsystem hereof while a consumer is reviewing the performance chart of a particular consumer product company displayed at a particular on-line electronic trading WWW site (e.g. <http://www.etrade.com>) considering whether or not to buy, keep or sell securities (e.g. stock or bonds) in this consumer product company, and eventually requests specific information about the company's products by initiating a trademark/company

name-directed CPI search according to the principles of the present invention by clicking on the HTML tag of a trademark/company name-encoded CPIR-enabling Applet embedded within the HTML code of the displayed performance chart.

On Page 75, amend the third paragraph as follows:

Fig. ~~45-U~~ 15U is a graphical representation of the RDBMS table entitled PHYSICAL KIOSK PROMO CAMPAIGN, showing its primary information fields, namely: Physical Kiosk ID No.; Date of Promotion Campaign; Physical Kiosk Promotion Spot ID No.1; ... ; Physical Kiosk Promotion Spot ID No. N; Total Ad Spots Ordered; and Date of Last Record Update.

On Page 79, amend the third paragraph as follows:

Figs. ~~49~~ 19A and 19B taken together provide a table listing the primary modes of information service provided to retailers and consumers alike by the Internet-Based Consumer Product Information Kiosk Configuration, Deployment, Management and Access Subsystem of the present invention.

On Page 82, amend the eighth paragraph as follows:

~~Figure 43 is~~ Figs. 43A and 43B set forth a schematic representation of the system architecture of an Integrated Consumer Product Marketing, Merchandising, and Education/Information System of an illustrative embodiment of the present invention.

On Page 83, amend the first paragraph as follows:

As illustrated in Fig. 1, the consumer-product information collection, transmission and delivery system of the first illustrative embodiment of the present invention is generally indicated by reference numeral 1 and comprises an integration of information subsystems, namely: an IPI finding and serving subsystem 2 for allowing consumers to find product related information on the Internet (e.g. WWW) at particular Uniform Resource Locators (URLs), using UPC numbers and/or trademarks and trade names symbolically-linked or related thereto; a Consumer Product Advertising and Promoting Subsystem 2A for advertising and promoting consumer products within physical retail shopping environments using Web-based product promotion kiosks, as shown in Figs. ~~3A17 through 3A24~~ 3A16 through 3A23; a UPC Product-

Information Subsystem ("UPC Catalog") 3 for providing retailers with accurate up-to-date product information on numerous consumer-products offered for wholesale to retailers by manufacturers registering their products therewith; a Electronic Trading Information Subsystem 4 for providing trading partners (e.g. a manufacturer and a retailer) to sell and purchase consumer goods by sending and receiving documents (e.g. purchase orders, invoices, advance slip notices, etc.) to consummate purchase and sale transactions using either Value Added Network (VAN) based EDI transmission or Internet (e.g. HTTP, SMTP, etc.) based electronic document communications; a Sales Analysis and Forecasting Information Subsystem 5 for providing retailers with information about what products consumers are currently buying at retail stores or expect to be buying in the near future; Collaborative Replenishment Information Subsystem 6 for determining what products retailers can be buying in order to satisfy consumer demand at any given point in time; a Transportation and Logistics Information Subsystem 7 for providing retailers with information about when ordered products (purchased by retailers at wholesale) will be delivered to the retailer's stores; and Input/Output Port Connecting Subsystems 8 for interconnecting the input and output ports of the above-identified subsystems through the infrastructure of the Internet and various value-added EDI networks of global extent. Notably, unlike prior art supply chain management systems, the consumer-product information collection, transmission and delivery system of the present invention embraces the manufacturers, retailers, and consumers of UPC-encoded products, and not simply the manufacturers and retailers thereof. As will become apparent hereinafter, this important feature of the present invention allows manufacturers and retailers to deliver valuable product related information to the consumers of their products, thereby increasing consumer purchases, consumer satisfaction and consumer loyalty. Prior art supply chain management systems have no way or means of providing such information services to the consumers of UPC-encoded products along the consumer-product supply and demand chain.

On Page 86, amend the first paragraph as follows:

In order to use the WebDox™ system, each remote Client Computer System 13 includes either a Windows 95 or Windows NT Computer system running WebDox Remote™ software from Premenos Corporation of Concord, California. The Windows 95 or Windows NT computer system 13 can be realized using a suitable computer system having an Intel 486 or

higher CPU, 16 MB of RAM or higher, and a VGA monitor or better, and running (i) Microsoft Windows 95 or Windows NT 3.51 or higher Operating System (OS) software, and (ii) Microsoft Internet Explorer 3.0 or higher from Microsoft Corporation. Also, the WebDox Remote™ Server is provided with a dial-up Internet connection (i.e. 14,400 bps or better) to the Internet infrastructure. The function of the Web-based Document Server 30, Web-based Administration System 31 and remote client subsystems 13 running the Premenos® WebDox Remote™ software is to provide a Web-based Document Transport System for automatically transferring information (e.g. UPN/TM/PD/URLs) from manufacturers to the IPD Servers of the system in order to periodically update the same. While the illustrative embodiment of this Web-based Document Transport System has been described in terms of its implementation using the WebDox™ system from Premenos, it is understood that other commercially available electronic document transport systems (e.g. COMMERCE: FORMS™ Electronic Business Forms Package from Sterling Commerce, Inc., <http://www.stercomm.com>) can be used to carry out this subsystem. The operation of this Web-Based Document Transport System will be described in detail hereinafter with respect to the collection and delivery of consumer product-related information to the IPDs hereof.

On Page 91, amend the last paragraph as follows:

According to the first system architecture shown in Fig. 2B1, the UPN/TM/PD/URL RDBMS 9 is realized by a SQL-based RDBMS server 9, whereas the IPD server 11 is realized by a Java Web Server 44' 11', provided with Java servlet support, and operably connected to the RDBMS server 9 by way of high-speed digital transmission link known in the art. During system operation, the Java Web Server 44' 11' serves to a Java-enabled client subsystem 13, an HTML-encoded document containing a servlet HTML tag <SERVLET> which, upon selection by a single mouse-clicking operation by the consumer, sends an http request to the Java Web Server 44' 11', invoking a prespecified UPN-encoded servlet stored therewithin, causing the CPIR-enabling servlet to execute on the server-side of the network. This causes the servlet to call and run certain predefined Java methods, which carry out an UPN-specified CPI search on the RDBMS server 9 and return the search results to the client subsystem 13 for display within a predetermined GUI generated therewithin. Using this system architecture, each UPN-encoded servlet executed within the Java Web Server 44' 11' will contain information relating to (1) the

UPN-specified consumer product on which product information is to be searched for within the RDBMS server 9, (2) licensing information relating to whom the CPIR-enabling servlet has been licensed.

On Page 92, amend the second and third paragraphs as follows:

According to the second system architecture shown in Fig. 2B2, the UPN/TM/PD/URL RDBMS 9 is realized by a SQL-based RDBMS server 9, whereas the IPD server 11 is realized by a Java Web Server 44²² 11", providing Java Applet support and being operably connected to the RDBMS Server 9 by a high-speed digital data transmission link known in the art. During system operation, the Java Web Server 44²² 11" serves to the Java-enabled client subsystem 13, an HTML-encoded document containing a "UPN-encoded" Applet HTML tag <APPLET> which, upon selection by a single mouse-clicking operation by the consumer, causes the CPIR-enabling Applet to execute on the client-side of the network, sending an http request to the Java Web Server 44²² 11", invoking a prespecified Common Gateway Interface (CGI) stored within the Java Web Server 44²² 11". This causes the Applet to call and CGI to run certain predefined methods for carrying out a UPN-specified CPI search on the RDBMS server 9 and returning the search results to the client subsystem 13 for display within a predetermined GUI prespecified within the Applet. Using this system architecture, each UPN-encoded Applet executed within the Java browser of the client machine 13 will contain information relating to (1) the UPN-specified consumer product on which product information is to be searched for within the RDBMS server 9, (2) licensing information relating to whom the client-side Applet has been licensed and by whom the Applet may be served to others within the terms of the licensing program/agreement, etc.

According to the third system architecture shown in Fig. 2B3, the UPN/TM/PD/URL RDBMS 9 is realized by a SQL-based RDBMS server 9, whereas the IPD server 11 is realized by a Java Web Server 44²² 11", providing client-side Applet support, and being operably connected to the RDBMS server 9 by way of a high-speed digital data transmission link known in the art. During system operation, the Java Web Server 44²² 11" serves to the Java-enabled client subsystem 13, an HTML-encoded document containing a UPN-encoded Applet HTML tag <APPLET> which, upon selection by a single-mouse clicking operation by the consumer, causes the Applet to execute on the client-side of the network, creating a "socket-type" connection at

lower (TCP/IP) communication layers between the client subsystem 13 and Java Web Server 44'22' 11'", enabling the Java Web Server 44'22' 11'" to run certain predefined Java methods for carrying out a UPN-specified CPI search on the RDBMS server 9, and returning the search results to the client subsystem 13 for display within a GUI prespecified within the Applet. Using this system architecture, each UPN-encoded Applet executed within the Java client subsystem 13 will be created to contain information relating to (i) the UPN-specified consumer product on which product information is to be searched for within the RDBMS server 9, (ii) licensing information relating to whom the client-side Applet has been licensed and by whom the Applet may be served within the terms of the licensing program, etc.

On Page 93, amend the first and second paragraphs as follows:

According to the fourth system architecture shown in Fig. 2B4, the UPN/TM/PD/URL RDBMS 9 is realized by a SQL-based RDBMS server 9, whereas the IPD Server 11 is realized by a Java Web Server 44'22'22' 11'", supporting client-side Applet execution and being operably connected to a high-speed digital data communication link well known in the art. During system operation the Java Web Server 44'22'22' 11'" serves to the Java-enabled client subsystem 13, an HTML-encoded document containing a Applet HTML tag <APPLET> which, upon selection by a single mouse-clicking operation by the consumer, causes the CPIR-enabling Applet to execute within the Java-enabled client 13 on the client-side of the network, calling a Remote Invocation Method to carry out a prespecified CPI search on the RDBMS server 9 and returning the search results to the client subsystem 13 for display within a predetermined GUI prespecified by the Applet. Using this system architecture, each UPN-encoded Applet executing within the Java enabled client 13 will contain information relating to (1) the UPN-specified consumer product on which product information is to be searched for within the RDBMS server, and (2) licensing information relating to whom the server-side Applet has been licensed and by whom the Applet may be served to others within the terms of the licensing program, etc.

In the first illustrative embodiment shown in Fig. 2B1, Java (enabled) Web Server 44'2' 11' can be realized by, for example, the Origin 200 Server or the O₂ Desktop Workstation from Silicon Graphics, Inc, a high-end SUN information server from Sun Microsystems, Inc., or any other suitable computing machine, running: (1) JDBC Interface software for providing a uniform access to a wide range of relational databases on RDBMS server 9 (if necessary in a particular

application of the system hereof) and providing a common base on which higher level tools and interfaces can be built; and (2) a servlet-enabled Web (http) server software program such as, the Java Web Server (JWS) 1.0 or later from JavaSoft, division of Sun Microsystems, Inc., or the JigSaw Web Server from the World Wide Web Consortium, each providing native Java support, or alternatively, the Fastrak™ Web (http) server from Netscape Communications, Inc., the Internet Information Server (IIS) from the Microsoft Corporation, the Apache HTTP Server from The Apache Software Foundation at <http://www.apache.org>, or any other http server capable of transporting HTML-encoded documents, in conjunction with the Java Servlet Developer's Kit from JavaSoft, or the Servlet Express Tool from IBM Research Labs in Haifa, Israel, for managing servlets on Web servers lacking native Java support. In order to develop servlets, the Java Web Server 11' should also be equipped with the following software tools: the Sun Java Developers Kit 1.1.x from Sun Microsystems, Inc.; and the Java Servlets Development Kit (JDSK) from Sun Microsystems, Inc., or a Java Development Environment that supports JDK 1.1.x, such as VisualAge for Java by IBM, Microsoft's Visual J++, or the like. Optionally, the Java Web Server 11' may also include Web-site development software (e.g. based on the HTML 3.2 or 4.0 Specification) for creating and maintaining the IPI Web-sites of the present invention, although such tools will be typically run on client subsystem 13 for practical reasons.

On Page 94, amend the first and last paragraphs as follows:

In the illustrative embodiments of Figs. 2B2 through 2B4, Java Web Servers 11' through 11'' can be realized by, for example, the Origin 200 Server or the O₂ Desktop Workstation from Silicon Graphics, Inc, a high-end SUN information server from Sun Microsystems, Inc., or any other suitable computing machine, running: (1) JDBC Interface software for providing a uniform access to a wide range of relational databases on RDBMS server 9 (if necessary in a particular application of the system hereof) and providing a common base on which higher level tools and interfaces can be built; (2) a Web (http) server such as the Java Web Server (JWS) from JavaSoft, the JigSaw Web Server from the World Wide Web Consortium, the Internet Information Server (IIS) from the Microsoft Corporation, the Apache HTTP Server from the Apache Software Foundation, or other Java-enabled Web server capable of transporting HTML encoded documents; (3) the Sun Java Developers Kit, from Sun Microsystems, Inc., for developing client-side Applets; and (4) optionally, Web-site development

software (e.g. based on the HTML 3.2 or 4.0 Specification) for creating and maintaining the IPI Web-sites hereof, although such tools will typically run on client subsystems 13 for practical reasons. Notably, when using the Microsoft IIS, one can use a Java Development Environment that supports JDK 1.1.x, such as VisualAge for Java by IBM, Microsoft's Visual J++, and the like. Also, Java Web Server 4422 11" must provide support for running CGI scripts written in Java, PERL or other suitable scripting language known in the art.

In principle, there can be millions of IPI Servers 12 within the system hereof, each enabled to serve Web-based documents containing consumer product related information. Notably, each such IPI Server 12 can be realized by, for example, the Origin 200 Server from Silicon Graphics, Inc, the O2 Desktop Workstation from Silicon Graphics, Inc., the ULTRA™ information server from Sun Microsystems, Inc., or any other computing machine (e.g. desktop, palmtop, laptop, etc.) running an operating system (e.g. UNIX, LINUX, Macintosh, MS Windows, NT, etc.) capable of performing the functions of an Internet (http) information server in a client-server distributed object computing environment. As shown in Figs. 2-1 and 2-2, each IPI Server 12 is interfaced with an ISP 10A in a conventional manner. Each such IPI Server 12 is assigned a static IP address and a unique domain name on the Internet. Each IPI Server 12 is also provided with (i) Web-site development software for creating HTML-encoded multi-media pages for Web-site development, (ii) a dynamic web-site auction hosting software solution, such as, AuctionNow 4.2 from OpenSite, Inc. at <http://www.opensite.com>; and (iii) Web-site server software for supporting HTTP and serving HTML, XML and other document formats used to construct hypermedia-type Web-sites containing product related information of a multi-media nature. Such Web sites can be expressed in HTML, XML, SGML and/or VRML or any other suitable language, which allows for Web-site construction and Web-site connectivity. Web-site management software can be used to maintain correct hyper-links for any particular Web site. Preferably, the IPI Servers 12 is maintained by a team of network managers under supervision of one or more webmasters.

On Page 95, amend the first paragraph as follows:

Each retailer-related electronic-commerce (EC) information server 12A indicated in Figs. 2-1 and 2-2 is operably connected to the infrastructure of the Internet. In general, each retailer-

related information server 12A can be realized by, for example, the Origin 200 Server or O2 Desktop Workstation from Silicon Graphics, Inc., a high-end information server from Sun Microsystems, Inc., or any other computing machine that can perform the function of a Server in a web-based, client-server type computer system architecture of the illustrative embodiment. As shown in Figs. 2-1 and 2-2, each retailer-related EC-enabled information server 12A is interfaced with an ISP 10A in a conventional manner, and is assigned a static IP address and a unique domain name on the Internet. Each retailer-related EC-enabled information server 12A is also provided with: (i) Java-enabled WWW (http) server software, such as Netscape Communications Fastrak Information Server software, for supporting http, ftp, XML/ICE and other Internet protocols, and serving HTML and XML formatted documents (i.e. pages) associated with Websites containing product related information of a multi-media nature; (ii) an advanced EC-enabled product merchandising software solution, such as the Host and Merchant (or Infinity) Intershop 4 E-Commerce Server Solution from Intershop Communications, Inc., of San Francisco, California, and/or catalogMANAGER® and catalogMAKER® software programs from RealEDI, Inc. of Sherman Oaks, California, for building, managing and operating all aspects of e-commerce WWW sites, whether implementing on-line merchandising solutions for retailers and manufacturers, creating business-to-business and business-to-consumer product catalogs; (iii) an Internet Advertisement Management Software Solution, such as OPEN ADSTREAM™ Internet AD management software solution by REAL-MEDIA, Inc. of New York, New York), for managing all aspects of Internet advertising on Internet information servers; (iv) a dynamic web-site auction hosting software solution, such as, AuctionNow 4.2 from OpenSite, Inc. at <http://www.opensite.com>; and optionally (v) Web-site development software for enabling the creation of HTML-encoded multi-media pages and the like for the EC-enabled Web-site development. Such EC-enabled Web-sites can be expressed in HTML, XML and/or VRML or any other suitable language, which allows for Web-site construction and Web-site connectivity. Web-site management software can be used to maintain correct hyper-links for any particular Web site. Preferably, each EC-enabled retailer-related server 12A is maintained by a team of network managers under supervision of one or more webmasters. The primary function of each retailer-related EC information server 12A is to enable the hosting of one or more EC-enabled stores or EC-enabled on-line catalogs (i.e. WWW sites) owned, operated, managed and/or leased by one or more retailers, (and optionally wholesalers and manufacturers

as well) along the retail supply and demand chain. The use of the Intershop 4 Hosting and Merchant E-commerce software solution enables sellers to design and build dynamic environments for buyers and sellers by enabling sellers (i.e. vendors) to: (1) create a unique look and feel for their e-commerce sites using a Web browser; (2) fully customize their e-commerce sites to maximize the buyers experience, using an import/export function for easily importing existing product databases and site design directly into the Intershop; (3) build detailed profiles of buyers and present them with products that match these profiles, creating a personalized shopping experience; and (4) offer complementary products for sale based on current selections, thereby raising the overall value of each e-commerce transaction carried out. Also, the back-office portion of the Intershop 4 E-commerce Solution is intuitively organized to make it easy for sellers to manage their on-line business through a Web browser.

On Page 96, amend the last paragraph as follows:

Each manufacturer-related electronic-commerce (EC) information server 12B indicated in Figs. 2-1 and 2-2 is operably connected to the infrastructure of the Internet. In general, each manufacturer-related EC information server 12B can be realized by, for example, the Origin 200 Server from Silicon Graphics, Inc., the O2 Desktop Workstation from Silicon Graphics, Inc., the ULTRA™ information server from Sun Microsystems, Inc., or any other computing machine that can perform the function of an http server in a client-server distributed object-computing environment. As shown in Figs. 2-1 and 2-2, each manufacturer-related EC-enabled information server 12B is interfaced with an ISP 10A in a conventional manner, and is assigned a static IP address and a unique domain name on the Internet. Each manufacturer-related EC-enabled information server 12B is also provided with: (i) Java-enabled WWW (http) server software, such as Netscape Communications FastTrak Information Server software, for supporting http, ftp, and other Internet protocols, and serving HTML and XML formatted documents (i.e. pages) associated with Web-sites containing product related information of a multi-media nature; (ii) an advanced EC-enabled product merchandising software solution, such as the Host and Merchant Intershop 4 E-Commerce Server Solution from Intershop Communications, Inc., of San Francisco, California, and/or catalogMANAGER® and catalogMAKER® software programs from RealEDI, Inc. of Sherman Oaks, California, for building, managing and operating all aspects of e-commerce WWW sites, whether implementing on-line merchandising solutions for

retailers and manufacturers, or creating business-to-business and business-to-consumer product catalogs; (iii) an Internet Advertisement Management Software Solution, such as OPEN ADSTREAM™ Internet AD management software solution by REAL-MEDIA, Inc. of New York, New York), for managing all aspects of Internet advertising on Internet information servers; (iv) a dynamic web-site auction hosting software solution, such as, AuctionNow 4.2 from OpenSite, Inc. at <http://www.opensite.com>; and optionally (v) Web-site development software for enabling the creation of HTML-encoded multi-media pages and the like for the EC-enabled Web-site development. Such EC-enabled Web-sites can be expressed in HTML, XML, SGML and/or VRML or any other suitable language which allows for Web-site construction and Web-site connectivity. Web-site management software can be used to maintain correct hyperlinks for any particular Web site. Preferably, each EC-enabled manufacturer-related server 12B is maintained by a team of network managers under supervision of one or more webmasters. The primary function of each manufacturer-related EC information server 12B is to enable the hosting or one or more EC-enabled stores or EC-enabled on-line catalogs (i.e. WWW sites) owned, operated, managed and/or leased by one or more manufacturers, (and optionally wholesalers and retailers as well) along the retail supply and demand chain.

On Page 105, amend the last paragraph as follows:

Alternatively, each network information server 84 can be realized using the Whistle INTERJET II network information server solution from IBM as a turnkey solution for the network information server 84 on the retail store LAN 80. ~~Details on the Whistle INTERJET II server can be found at <http://www.whistle.com>, incorporated herein by reference.~~ This implementation can support up to hundred (100) bar code driven kiosks on a retail store LAN of the present invention, and in some applications, it may be desirable to modify the e-mail software provided thereon in order to achieve the business objectives of any particular application. It is understood, however, that in many applications, in which advertisements, prices and specials, notices and the like are to be displayed on the kiosks during idle moments (i.e. when consumers are not scanning bar coded products for consumer product related information access and display), there will be a need to use a more robust electronic messaging and http server solutions on the retailer's network information server 84.

On Page 107, amend the last paragraph as follows:

In accordance with the principles of the present invention, the problem of providing consumers with copies of accessed consumer product information within retail shopping environments is addressed by enabling the consumer at the retail-based kiosk to: (1) display an e-mail envelope (ready for stuffing, addressing and sending) the display frame 20C of the Web browser program thereof, by manually selecting control button 21G provided along the control frame 20B, shown in Fig. 3A14A; (2) capturing, saving, and attaching any accessed/displayed consumer product document to the displayed e-mail envelope by manual (or voiced-directed) selection of the "capture, save and attach" button 110 within the displayed e-mail envelope of Fig. 3A14, ~~or capturing and recording the URL of the CPI related document being displayed by manual (or voice directed) selection of the "capture and record" button 112 within the displayed e-mail envelope of Fig. 3A16;~~ (3) addressing the e-mail envelope with the consumer/shopper's home, office or like e-mail address by either reading an e-mail address encoded within a bar code (or magnetic-stripe) structure or manually entering the same within the addressee field; and (4) sending the stuffed e-mail envelope by manual selection of the "send" button 114 within the displayed e-mail envelope. The enabling infrastructure for this e-mail enabled consumer product information transport subsystem will be described hereinbelow.

On Page 108, amend the first paragraph as follows:

Notably, the e-mail envelope displayed on each information kiosk hereof, as shown in ~~Figs. 3A14 and 3A16~~ Fig. 3A14, need not indicate that a copy of a particular e-mail message is being sent to the centralized e-mail server 88 upon selecting the "send" button, although circumstances may dictate that notice be given to customers using this e-mail CPI-related transport service within retail shopping environments. In the case where the "cc" field visually indicated to the consumer, it may be desirable to enable the consumer to delete preset recipients in the addressee fields thereof so that, upon transmission, no copies of transmitted e-mail envelope will be sent to third parties (e.g. retailers and/or manufacturers), thereby providing the customer with a greater sense of confidentiality and privacy with respect to its product inquires when using this e-mail CPI-related transport service.

On Page 110, amend the first through last paragraphs as follows:

The structure and function of the consumer product advertisement and promotion delivery subsystem of the present invention, indicated by reference numeral 2A in the system diagram of Fig. 1, will now be described in greater detail with reference to Figs. 3A17 3A16 through 3A24 3A23.

In general, the function of subsystem 2A is to enable the management of Web-based consumer product advertisements, promotions, and product location instructions created by manufacturers, their agents, and retailers, and delivering the same to consumers within physical retail environments using wireless Web-based product promotion/advertising kiosks installed therewithin. As shown in Fig. 3A17 3A16, subsystem 2A comprises: a plurality of manufacturer-operated client machines for (i) managing UPN/TM/PD/URL data links and using EDI techniques to transmit the same to a centralized Web-based RDBMS (structured as shown in Fig. 3A19A) for subsequent delivery to Web-based product promotion kiosks installed within a retailer WAN, as shown in Figs. ~~3A18 through 3A21C~~ 3A17 through 3A20, or (ii) managing UPN-indexed information resource files (IRFs) of a multi-media nature, and using EDI techniques to transmit the same to a centralized Web-based RDBMS (~~structured as shown in Fig. 3A19B~~) for subsequent delivery to the Web-based product promotion kiosks; a plurality of advertiser-operated client machines for (i) managing UPN/TM/PD/URL data links and using EDI techniques to transmit the same to a centralized Web-based RDBMS (structured as shown in Fig. 3A19A) for subsequent delivery to Web-based product promotion kiosks installed within a retailer WAN, as shown in Figs. ~~3A18 through 3A21C~~ 3A17 through 3A20, or (ii) managing UPN-indexed information resource files (IRFs) of a multi-media nature, and using EDI techniques to transmit the same to a centralized Web-based RDBMS (~~structured as shown in Fig. 3A19B~~) for subsequent delivery to the Web-based product promotion kiosks; and a plurality of in-store retailer local area networks (LANs) or wide area networks (WANs), as shown in the Fig. 3A18 3A17, for delivering product advertising and promotional information to consumers via Web-based product promotion kiosks of the type shown in Figs. ~~3A19C and 3A19D~~ 3A18A and 3A18B, arranged, for example, in retail stores as shown in Fig. 3A20 3A19 and display such information using browser GUIs as shown, for example, in Fig. 3A21A 3A20. Notably, Web-based information resource files (IRF) associated with the UPN/TM/PD/URL links in the Web-based RDBMS of Fig. 3A17 3A16, can be served from servers 12, 12', 12 and 12A, as in the

case of the IPI finding subsystem of Figs. 2-1 and 2-2, or stored within a terabyte-sized data warehouse (i.e. RDBMS) accessible to consumers through http servers in a manner known in the art.

In Fig. 3A18 3A17, an illustrative embodiment of the consumer product promotion/advertisement delivery subsystem of Fig. 3A17 3A16 is shown in greater detail. Preferably, each retailer-operated Web-based product promotion kiosk in the information network of Fig. 3A18 3A17 uses a multi-frame display framework as shown in Fig. 3A21A 3A20, to simultaneously display the following elements of information to consumers within the store: (i) a display frame for displaying the retailer's identity or image (e.g. "Welcome to Wal-Mart® Stores"), created by the manufacturer and selected by the retailer through a Web-enabled client machine (e.g. retailer-operated administration client machine shown in Figs. 3A18 and 3A20 3A17 and 3A19) and indexed by the exemplary URL denoted as URL-DF1; (ii) a display frame for displaying a product advertisement, created by the manufacturer and/or its agent, but selected by the retailer through a Web-enabled client machine (e.g. retailer-operated administration client machine shown in Figs. 3A18 and 3A20 3A17 and 3A19), and indexed by the exemplary URL denoted by URL-DF2; (iii) a display frame for displaying a promotional message about the advertised product, selected by the retailer through a Web-enabled client machine (e.g. retailer-operated administration client machine shown in Figs. 3A18 and 3A20 3A17 and 3A19), and indexed by the exemplary URL denoted by URL-DF3; and (iv) a display frame for displaying information indicating where the advertised product is located within the store (e.g. by store category, aisle, store section, etc.). Notably, each such set of information to be displayed from a particular product promotion kiosk in particular retail store is programmed by the retailer using a Web-enabled client. During the programming operations, the retail manager will view a Product Promotion Programming Table, as shown in Fig. 3A23 3A22, which is maintained within Web (http) server 9' or http server connected to the data warehouse shown in Fig. 3A18 3A17. The computing platform supporting each such http server can also run the OPEN ADSTREAM™ (OAS) 5.0 Internet Advertisement Management Solution software from Real Media, Inc., of New York, New York. Using the OAS 5.0 advertisement management solution, and the Product Promotion Programming Table, each retail store manager (or other designated person within the organization), can determine which product advertisements and promotions (i.e. HTML code, image files, and any other rich media content associated therewith)

will be displayed within the designated display frames (DF1, DF2, DF3 and DF4) a particular product promotion kiosk, at which times of the day, on which dates, etc. in accordance with a product promotion program being carried out by the retailer. While the manufacturers, their agents and advertising agents will be enlisted to create product advertisements (i.e. digital content) for the consumer product advertising and promoting subsystem 2A of the present invention, the retailers are provided with total control over what products within their store will be advertised and promoted, when and where within their enterprises.

On Page 111, amend the first paragraph as follows:

As shown in Figs. ~~3A19C and 3A19D~~ 3A18B and 3A18C, each Web-based promotion kiosk in the retail shopping LAN or WANs of Figs. ~~3A17 and 3A18~~ 3A16 and 3A17, comprises a Web-enabled computing platform which may have many if not all of the subcomponents and functionalities of the consumer product information kiosks shown in Fig. 3A3, and described in great detail hereinabove (e.g. including touch-screen LCD panel, automatic laser scanning bar code reader), and therefore, may function as such if and when retail conditions require. However, Web-based the product promotion kiosk of Figs. ~~3A19C and 3A19D~~ 3A18B and 3A18C also includes a number of important intelligence functionalities which makes it particular well suited for product advertising and promotion within retail stores, as shown in Fig. ~~3A20~~ 3A19.

On Page 112, amend the first through last paragraphs as follows:

In particular, as shown in Fig. ~~3A19D~~ 3A18C, the product promotion kiosk comprises a pair of 2-D CCD sensors and associated light collection optics, integrated within its ultra-thin flat-panel housing, for automatically capturing images of scenery (e.g. human subjects) with its field of view (FOV) of the kiosk, as shown in Fig. ~~3A19C~~ 3A18B, and an image processor for processing the same to detect the presence of human eyes glazing at the display surface of the kiosk. Such images are captured using image capture subsystem, of which the 2-D CCD sensors comprise a subcomponent. The individual fields of view of each CCD sensor can be combined to provide a resultant FOV for the kiosk. Each digital image is time-stamped and transferred to

an image buffer for preprocessing in a manner well known in the art. Details on digital image preprocessing algorithms can be provided in the textbook "HANDBOOK OF IMAGE PROCESSING OPERATORS" (1996) by R. Klette and P. Zamperoni, incorporated herein by reference.

As shown in Fig. 3A19D 3A18C, a high-speed digital image processor is provided for processing each preprocessed image of the captured scenery, so as to detect one or more pairs of eyes within the captured image, indicative that human eyes were gazing at the product advertisement and promotion being displayed at the time-stamped instant of the captured image. Conventional eye-tracking algorithm software known in the art can be used or otherwise adapted to perform this image processing function.

Each time a pair of eyes is detected, data indicative thereof (including the time stamp) can be stored within long-term memory (e.g. written to a hard disc storage embodied within the kiosk), whereas each frame of buffered image data, once analyzed, can be discarded (i.e. dumped). Such image frame data can be captured at a rate of 5 or more (pairs of) frames per second to collect accurate information about the number of eyes gazing at the displayed advertisements, within the field of view of the kiosk, which is spatially coincident with the view angle of the touch-screen LCD panel employed within the kiosks. At the same time, information about which UPN-indexed product advertisements are being displayed on the GUI of the kiosk, at time-stamped instances of operation, can also be written to the hard drive of the kiosk, and eventually be compared against the eye-tracking data recorded thereon to determine the number of eyes which gazed at each product advertisement/promotion displayed on each product promotion kiosk, within a particular store, on a given date, as indicated by the exemplary report shown in Fig. 3A24 3A23. Periodically, this information can be transferred to a retailer-operated server on the LAN or WAN for comparison with sales information collected at retailer-operated POS stations. As indicated in the report of Fig. 3A24 3A23, the server can be analysis the collected retail information and determine how many units of a particular UPN-labeled product were sold in the retail store, within which product advertisements/promotions for the product were displayed on product promotion kiosks within the retail store environment. Such reports will help determine the efficacy of a product advertising/promotion program run over the network of product promotion kiosks in the store, and how the program should be modified to increase sales. All sorts of value information can be collected by the intelligent Web-based

product promotion kiosks of the present invention, including shopper traffic through a retail store, patterns of shopper pooling during particular parts of the day, all carried out in a non-intrusive manner without violating the privacy concerns of the retailer's customers.

On Page 124, amend the third paragraph as follows:

Notably, such license-related information may specify: (1) one or more specific host domains (e.g. ~~www.homedepot.com~~ or ~~www.walmart.com~~) from which a Web document containing the corresponding servlet tag may launch the CPIR-enabling servlet under a licensing program; (2) one or more general Internet domains (e.g. .com, .org., .gov, .int, .mil, .uk, etc.) from which a Web document containing the corresponding servlet tag may launch the CPIR-enabling servlet under a licensing program; (3) the time duration of the licensing period associated with the CPIR-enabling servlet; and (4) any other restrictions set by the associated manufacturer and/or retailer, and/or administrator of the consumer product information system hereof, that must be observed for a registered CPIR-enabled servlet to operate within a Web-document served from the registered Internet domain.

On Page 135, amend the first paragraph as follows:

Notably, such license-related information may specify: (1) one or more specific host domains (e.g. ~~www.homedepot.com~~ or ~~www.walmart.com~~) from which a Web document containing the corresponding Applet tag may launch the CPIR-enabling Applet under a licensing program; (2) one or more general Internet domains (e.g. .com, .org., .gov, .int, .mil, .uk, etc.) from which a Web document containing the corresponding Applet tag may launch the CPIR-enabling Applet under a licensing program; (3) the time duration of the licensing period associated with the CPIR-enabling Applet; and (4) any other restrictions set by the associated manufacturer and/or retailer, and/or administrator of the consumer product information system of the present invention, that must be satisfied for a registered CPIR-enabled Applet to operate within a Web-document.

On Page 138, amend the second paragraph as follows:

Notably, in the HTML 4.0 Specification, published by the World Wide Web Consortium at <http://www.w3.org/TR/WD-html40-970917/>, the Applet element has been deprecated in

favor of the OBJECT element, which offers an all purpose solution to generic object inclusion. The HTML 4.0 Specification now allows the OBJECT element to include images (via the tag) and Applets (via the <APPLET> tag) in the same manner. Thus, when constructing Web documents and CPIR-enabling Applets in accordance with the HTML 4.0 Specification, the source code for each CPIR-enabling Applet will adhere to an entirely different syntax, the details of which are set forth which in the HTML 4.0 Specification, supra, incorporated herein by reference.

On Page 144, amend the first paragraph as follows:

Notably, such license-related information may specify: (1) one or more specific host domains (e.g. ~~www.homedepot.com~~ or ~~www.walmart.com~~) from which a Web document containing the corresponding Applet tag may launch the CPIR-enabling Applet under a licensing program; (2) one or more general Internet domains (e.g. .com, .org., .gov, .int, .mil, .uk, etc.) from which a Web document containing the corresponding Applet tag may launch the CPIR-enabling Applet under a licensing program; (3) the time duration of the licensing period associated with the CPIR-enabling Applet; and (4) any other restrictions set by the associated manufacturer and/or retailer, and/or administrator of the consumer product information system of the present invention, that must be satisfied for a registered CPIR-enabled Applet to operate within a Web-document.

On Page 142, amend the last paragraph as follows:

In general, the method of Figs. 4I1 and 4I2, like that of Figs. 4G1 and 4G2 ~~4G2~~, involves using a client-side CPIR-enabling Applet to automatically conduct a UPN-directed search on the UPN/TM/PD/URL Database Management Subsystem hereof (i.e. RDBMS server 9) in response to a single mouse-clicking operation by the consumer on the HTML tag associated with the CPIR-enabling Applet. In the illustrative embodiment, the CPIR-enabling Applet of the present invention is a program written in the Java™ programming language and has an HTML tag (indicated by <APPLET>) which is designed to be included in an HTML page, much in the same way an image can be included therewithin (in accordance with the HTML 3.2 Specification).

On Page 148, amend the first and second paragraph as follows:

Notably, such license-related information may specify: (1) one or more specific host domains (e.g. ~~www.homedepot.com~~ or ~~www.walmart.com~~) from which a Web document containing the corresponding Applet tag may launch the CPIR-enabling Applet under a licensing program; (2) one or more general Internet domains (e.g. .com, .org., .gov, .int, .mil, .uk, etc.) from which a Web document containing the corresponding Applet tag may launch the CPIR-enabling Applet under a licensing program; (3) the time duration of the licensing period associated with the CPIR-enabling Applet; and (4) any other restrictions set by the associated manufacturer and/or retailer, and/or administrator of the consumer product information system of the present invention, that must be satisfied for a registered CPIR-enabled Applet to operate within a Web-document.

The RMI on Java Web Server 11²²² 11²²² enables connectivity between Java Web Server 11²²² 11²²² and the RDBMS Server 9 using the standard Java native method interface (JNI) or the standard JDBC package. At its most basic level, RMI is Java's remote procedure call (RPC) mechanism enabling connectivity to the RDBMS server 9 using native methods. Further details on the RMI are published in the Technical Paper "Java Remote Method Invocation -Distributed Computing For Java" by JavaSoft, ~~set forth at~~ <http://www.javasoft.com/marketing/collateral/javarmi.html>, incorporated herein by reference.

On Page 154, amend the first paragraph as follows:

Referring to Figs. 4Q1 through 4Q2, the above-described method of CPI display is illustrated in the context of a consumer visiting an on-line EC-enabled auction site (~~e.g. at~~ <http://www.ebay.com>), and considering whether or not to place a bid on a particular consumer product displayed within the auction listings thereof. In general, this environment is similar to the situation where a consumer finds him/herself searching for consumer product information at a WWW Search Directory or Engine, such as Yahoo, Excite, Alta Vista, Lycos, etc. In such an environment, it will be desirable for the consumer to search against all manufacturers within the entire UPN/TM/PD/URL RDBMS 9 before returning the search results to the consumer for display. Therefore, in this sort of Cyberspace environment, it will be oftentimes desirable to embed a CPIR-enabling Applet in the home-page of the WWW on-line auction site so that, upon

clicking the graphical icon thereof, an independent Java GUI to the BRANDKEY REQUEST CENTRAL™ WWW site will be automatically produced so that all modes of searching are made available to the consumer against all manufacturers registered (and possibly unregistered) within the UPN/TM/PD/URL RDBMS 9, as shown in Fig. 4Q2. Notably, this Java GUI is very similar to the Java GUI set forth in Fig. 3C.

On Page 155, amend the first paragraph as follows:

Referring to Figs 4S1 through 4S2, the above-described method of CPI searching and display is illustrated in the context of a consumer visiting a typical WWW site (~~e.g. the Applicant's Intellectual Property Law Firm at <http://www.tipatlaw.com>~~), whereupon an Internet advertisement is presented for a particular consumer product, solely for illustrative purposes. At this point of presence on the WWW, the consumer might very well like to review information published on the WWW relating to the advertised consumer product. Therefore, in this sort of Cyberspace environment, it will also be desirable to embed a CPIR-enabling Applet within, closely near, or immediately about the space of the advertisement so that, upon clicking the image associated thereof, a "BRANDKEY REQUEST" URL Search will be automatically carried out within the UPN/TM/PD/URL RDBMS 9, and the search results thereof displayed in a CPID-enabling Java GUI, as shown in Fig. 4S2. As shown, this Java GUI displays a menu-formatted list of categorized URLs that have been symbolically linked to the UPN of the advertised consumer product on which the search inquiry was initiated. Typically, this categorized menu of URLs, accessed from the UPN/TM/PD/URL RDBMS 9, would have been updated as early as the night before UPN/TM/PD/URL link updating/management operations carried out in the manner described hereinabove.

On Page 156, amend the second paragraph as follows:

Referring to Figs 4T1 through 4T2, the above-described method of CPI searching and display is illustrated in the context of a consumer visiting a particular on-line electronic trading WWW site (~~e.g. <http://www.etrade.com>~~). At this site, the consumer is assumed to be reviewing the performance chart of a particular consumer product company displayed at this electronic trading WWW site, and is considering whether or not to buy, keep or sell securities (e.g. stock or bonds) in this consumer product company. At this point of presence on the WWW, the

consumer decides that he or she would like to first ascertain specific information about the company's products by initiating a trademark/company name-directed CPIR search according to the principles of the present invention. In accordance with the present invention, the consumer identifying a client-side would achieve this or server-side CPIR-enabling Java Applet embedded within the HTML code of the performance chart displayed at the on-line electronic trading WWW site. In the illustrated embodiment, the CPIR-enabling Applet is graphically indicated by an associated graphical image (e.g. BRANDKEY REQUEST™ Cyber-Service™ Trademark-Directed URL Search) and is encoded with the trademark an/or company name of a particular manufacturer/vendor associated with the display performance chart. Notably, the creation, distribution and embedding of such CPIR-enabling Applets must be carried out well in advance of the consumer arriving at the particular point of presence shown in Fig. 4T1. In accordance with the principles of the present invention, when the consumer performs a single mouse-clicking operation on the graphical image associated with the embedded CPIR-enabling Java Applet, the underlying CPIR-enabling Applet is executed and a trademark-directed URL search is automatically made against the UPN/TM/PD/URL Database Management Subsystem 9 hereof. Quickly thereafter, the results from the trademark/company name directed search are automatically displayed in a Java GUI on the browser of the requesting consumer's client machine, as shown in Fig. 4T2. As shown, the consumer is free to scroll through the displayed GUI, looking for URLs on particular consumer products of the manufacturer/vendor.

On Page 180, amend the last paragraph as follows:

For licensing purposes, it may be desirable or necessary to have the user supply "end-use" types of information to the IPD server 11 during this mode of operation in order to identify on which information servers or domains (e.g. ~~www.ipfcorp.com~~) particular CPIR-enabling Applets are to be used (i.e. embedded within HTML-documents and launched therefrom by the end-user which will typically be the consumer). In some instances, licenses for CPIR-enabling Applets will carry a fee to be paid by the downloader; in other instances, there will be no fee requirements. Such details will depend on prevailing business conditions along the retail supply and demand chain.

On Page 186, amend the first paragraph as follows:

As indicated at Block A in Fig. 3A13A, the first step of the first illustrative embodiment of the CPI transport method involves launching a consumer product information (CPI) capture and transport application/service on an Internet-enabled bar code driven (BCD) CPI kiosk of the present invention, as shown in Figs. 3A9 through ~~2A10D~~ 3A10D. As indicated in Fig. 3A14, this application launching process can be initiated by selecting application/service button 21G in the control strip of the kiosk browser display screen. When the application has been launched, a CPI-transporting "electronic-mail" envelope 116 will appear within the display frame of the browser's GUI, as shown in Fig. 3A14. As shown therein, the (Java-enabled) GUI for the CPI transporting email envelope is provided with:

On Page 188, amend the first and second paragraphs as follows:

The second illustrative embodiment of the CPI transport method (i.e. service) of the present invention, referred to hereinafter as the SEND-IT-HOME™ e-mail service, will now be described with reference to Figs. 3A15A through ~~3A1G~~ 3A15C.

As indicated at Block A in Fig. 3A15A, the first step of the second illustrative embodiment of the CPI transport method involves launching a consumer product information (CPI) capture and transport application/service on an Internet-enabled bar code driven (BCD) CPI kiosk of the present invention, as shown in Figs. 3A9 through 3A10D. ~~As indicated in Fig. 3A16, this~~ This application launching process can be initiated by selecting application/service button 21G in the control strip of the kiosk browser display screen. When the application has been launched, a CPI-transporting "electronic-mail" envelope will appear within the display frame of the browser's GUI, ~~as shown in Fig. 3A16~~. As shown therein, the (Java-enabled) GUI for the CPI transporting email envelope is provided with:

On Page 189, amend the first paragraph as follows:

As indicated at Block D in Fig. 3A15B, each instant the consumer/shopper has found a consumer product information resource of particular interest, which he or she wants to send the corresponding URL to a home or work e-mail address, the consumer/shopper selects the first single-click button 110 on the CPI-transporting envelope 116' (~~indicated as "CAPTURE AND RECORD" in Fig. 3A16~~). This causes the URL of the information resource being displayed on

the display screen of the BCD CPI kiosk to be automatically captured and recorded within the message field 119 of the CPI-enabling envelope 116". Optionally, the consumer may type a short note in this field using a "pop-up" keyboard launched by "pop-up" keypad button 121 on envelope 116'.

On Page 195, amend the fifth paragraph as follows:

To maximize value to a particular retail store's customers, each BRANDKEY REQUEST RETAIL™ Website served at each retail store subscriber would be made accessible to consumers outside their retail stores (e.g. at home, in the office or on the road) by several Internet access methods including, for example: through a hot-linked URL posted on the retail store's Website, pointing to the BRANDKEY REQUEST RETAIL™ Website; through a publicly accessible URL, e.g. <http://www.brandkeysystems.com/retail/storenumber; etc>.

On Page 205, amend the last paragraph as follows:

In the Internet-Based Consumer Product Advertisement Marketing, Programming, Management and Delivery Subsystem 502, the primary function of the Web-Based CPI Kiosk Advertisement Marketing/Sales/Management Server 507 is to enable advertisers (e.g. employed by a particular manufacturer or retailer or working as an advertising agent therefor) to perform a number of functions, namely: (1) register with the system 2'; (2) log onto the Kiosk Advertisement Marketing/Sales/Management Web Site (e.g. — at <http://www.brandkeydisplay.com>) maintained by the system administrator or its designated agent; (3) view catalogs of physical and/or virtual CPI kiosks deployed within retail shopping environments by retailers, at which a registered advertiser can consider purchasing ad slots on manufacturer/retailer authorized physical and/or virtual CPI kiosks (e.g. at a price set by the user activity characteristics of the kiosk periodically measured by the http and/or Applet server enabling the same); (4) purchase advertisement slots on manufacturer/retailer-authorized physical or virtual CPI kiosks deployed in physical or electronic retail shopping space; (5) create, deploy and manage advertising campaigns over one or more physical and/or virtual CPI kiosks deployed by retailers in retail space; and (6) monitor the performance of kiosk-based advertising campaigns during execution, as required by client demands and prevailing business considerations, using any Web-enabled client subsystem 13.

On Page 206, amend the first paragraph as follows:

In the Web-Based Consumer Product Promotion Marketing, Programming, Management and Delivery Subsystem 503, the primary function of the Web-based CPI Kiosk Promotion Marketing/Sales/Management Server 508 is to enable promoters (e.g. employed by a particular retailer or manufacturer or working as an promotional agent therefor) to perform a number of functions, namely: (1) register with system 2'; (2) log onto the CPI Kiosk Promotion Marketing/Sales/Management Web Site (e.g. at <http://www.brandkeypromote.com>) maintained by the system administrator or its designated agent; (3) view catalogs of physical and/or virtual CPI kiosks deployed within retail shopping environments by retailers, at which a registered promoter can consider purchasing or otherwise acquiring promotion slots on manufacturer/retailer-authorized CPI kiosks (e.g. at a price set by the user activity characteristics of the kiosk periodically measured by the http and/or Applet server enabling the same); (4) purchase or otherwise acquire (product sales) promotion slots on manufacturer/retailer authorized physical or virtual CPI kiosks deployed in retail shopping space; (5) create, deploy and manage product promotion campaigns over one or more physical and/or virtual kiosks deployed by retailers (or manufacturers) in retail space; and (6) monitor the performance of kiosk-based promotion campaigns as required by client demands and prevailing business considerations, using any Web-enabled client subsystem.

On Page 206, amend the second and third paragraphs as follows:

In the illustrative embodiment, the primary function of each Consumer Product Advertising Web Server 509 is to enable the publication of Internet-based product advertisements (e.g. QuickTime® videos from Adobe, Inc., Superstitial™ rich media advertisements from Unicast communications, Inc., <http://www.unicast.com>, etc.) for delivery to subnetworks of physical and virtual CPI kiosks in accordance with the principles of the present invention. As described in great detail hereinabove, these Web-based kiosk advertisements can be created by the registered advertiser using powerful authoring tools well know in the digital creation arts.

In the illustrative embodiment, the primary function of the Consumer Product Promotion Web Server 510 is to enable the publication of Internet-based product promotions (e.g.

QuickTime® videos from Adobe, Inc., Superstitial™ rich media promotions from Unicast communications, Inc., ~~<http://www.unicast.com>~~, etc.) for delivery to subnetworks of physical and virtual CPI kiosks in accordance with the principles of the present invention. As described in great detail hereinabove, these Web-based kiosk promotions can be created by the registered promoter using powerful promotion authoring tools made available from the Web-based CPI Kiosk Promotion Marketing/Sales/Management Server 510, to be described in greater detail hereinafter.

On Page 209, amend the last paragraph as follows:

The purpose of transporting the data content in each such locally-managed UPN/TM/PD/URL RDBMS 512 to centralized UPN/TM/PD/URL RDBMS 9' is to enable distribution of its UPN/TM/PD/URL links to: (i) consumers and end-users within physical retail environments having access to a plurality of physical CPI serving kiosks 513 driven by a plurality of Web (http) servers 519 operably connected to the infrastructure of the Internet, as shown in Fig. 13; (ii) consumers and end-users within electronic retail environments having access to a plurality of virtual CPI serving kiosks driven by a plurality of CPIR-enabling Java Applet servers 520 operably connected to the infrastructure of the Internet; and (iii) consumers and end-users interfaced with a plurality of Web-enabled client machines at home, school, in the office or on the road having access to a plurality of UPN-driven consumer product information portals (~~e.g. BrandKey Request Central WWW Site at <http://www.brandkeyrequestcentral.com>~~) on the WWW, driven by a plurality of mirrored http information servers 519B (operably connected to the infrastructure of the Internet) as shown in Fig. 13. Similarly, each registered advertising agent might be supplied with such UPN/TM/PD/URL LCMT software and participate in the creation, management, and transport of the manufacturer's UPN/TM/PD/URL RDBMS.

On Page 211, amend the third paragraph as follows:

As shown in Fig. 13, each Web-based (http) CPI kiosk server 519A has a statically assigned IP address, and an assigned domain name (~~e.g. <http://www.brandkeyrequestcentral.com/northamerica/homedepot>~~). Preferably, each such CPI kiosk server 519A is assigned to a single barcode-driven/touch-screen-enabled LCD-based

physical CPI kiosk 513, on which a retailer-oriented WWW site (at the assigned domain) is graphically displayed in the retailer's store 516. As shown in Fig. 13, the function of the advertisement/promotion spot queue 521 associated with each Web-based kiosk server 519A is together queuing up advertisement and promotion spots, ordered by registered advertisers, for either a random or ordered display on the particular physical CPI kiosk assigned to the Web-based kiosk server 519A.

On Page 212, amend the last paragraph as follows:

As shown in Fig. 13, each Web-based (http) portal information server 519B has a statically assigned IP address, and an assigned domain name ~~(e.g.,~~ <http://www.brandkeyrequestcentral.com/northamerica/english>). The primary function of the Web information server 519B is to serve up to the public, in different languages, barcode-drivable CPI portal WWW sites, at which the entire UPN/TM/PD/URL RDBMS 9' is searchable by members of the public without the restriction of MIN filters, UPN filters and/or trademark (TM) filters which are applied to retail-based CPI kiosks for the purpose of preserving the goodwill embodied within manufacturer-retailer relationships along the retail chain, as discussed hereinabove.

On Page 217, amend the last paragraph as follows:

As shown in Fig. 15E, the RDBMS table entitled RETAILER in the illustrative embodiment of the present invention, comprises primary information fields, namely: Company Name; Street Address; City; State; Postal Code; Country; Retailer ID No.; Contact Person; Phone Number; E-Mail Address; Fax Number; URL of Retailer WWW Site; Purchasing Director Identity; Purchasing Director E-Mail; UPC Catalog Provider; UPC Catalog Provider Contact; UPC Catalog Provider Phone; UPC Catalog Provider E-Mail; EDI B2B Enabler; EDI B2B Enabler Contact; EDI B2B Contact Phone; EDI B2B Contact E-Mail; EDI Vendor; EDI Vendor contact Identity; EDI Vendor Contact Phone; EDI Vendor Contact E-Mail; Marketing Manager; Total Number of Retail Stores; and Date of Last Record Update. Many of these information items will be collected by the system during the Retailer Registration mode of the system, depicted in the Information Service Mode shown in Fig. 49 19A. Information about the retailer's EDI capabilities and UPC Catalog management facilities will be useful in those cases where the

retailer is a vendor of private-label goods, typically manufactured by another who applies the retailer's brand name (i.e. trademarks) to the consumer goods under contract. In such instances, the retailer (i.e. a vendor of privately-labeled consumer product goods) would want to create and manage links between the UPNs of its products, trademarks applied thereto, product descriptors, and URLs pointing to CPI published in the WWW. Thus, in such instances, such retailers would register with the system in the same way as a manufacturer would, downloading UPN/TM/PD/URL link creation, management and transport software for installation and use in the manner illustrated in Fig. 2C2 and described above.

On Page 219, amend the first and last paragraphs as follows:

As shown in Fig. 15I, the RDBMS table entitled ADVERTISER in the illustrative embodiment comprises primary information fields, namely: Advertiser Name; Street Address; City; State; Postal Code; Contact Person; Phone Number; E-Mail Address; Fax Number; Advertiser ID No.; Ad Agent for Manufacturer #1; Ad Agent for Manufacturer #2; ... ; Ad Agent for Manufacturer #N; Total # Manufacturer Agency Relations; Ad Agent for Retailer #1; Ad Agent for Retailer #2; ... ; Ad Agent for Retailer #N; Total Number of Retailer Agency Relations; URL for Advertiser WWW Site; Advertiser Network Acct. No.; Advertiser Network Password; and Date of Last Record Update. This data table maintains information on advertisers (e.g. advertising agents for manufacturers, retailers and other vendors working along the retail supply and demand chain) who register with the system, as well as their agency relationships with particular manufacturers, retailers and other vendors. While such agency relationship information will be initially supplied by the advertiser during the Advertiser Registration procedure indicated in Fig. 29, it must be confirmed or verified by the manufacturer during Advertiser Registration procedure indicated in Fig. 16, or by the retailer during advertiser registration procedure indicated in Fig. 19 19A.

As shown in Fig. 15J, the RDBMS table entitled PROMOTER in the illustrative embodiment of the present invention comprises primary information fields, namely: Promoter Name; Street Address; City; State; Postal Code; Contact Person; Phone Number; E-Mail Address; Fax Number; Promoter ID No.; Promotion Agent for Manufacturer #1; Promotion Agent for Manufacturer #2; ... ; Promotion Agent for Manufacturer #N; Total Number of

Manufacturer Agency Relations; Promotion Agent for Retailer #1; Promotion Agent for Retailer #2; ... ; Promotion Agent for Retailer #N; Total Number of Retailer Agency Relations; URL for Promoter WWW Site; Promoter Network Acct. No.; Promoter Network Password; and Date of Last Record Update. This data table maintains information on promoters (e.g. promotional agents for manufacturers, retailers and other vendors working along the retail supply and demand chain) who register with the system, as well as their agency relationships with particular manufacturers, retailers and other vendors. While such agency relationship information will be initially supplied by the promoter during the Promoter Registration procedure indicated in Fig. 29, it must be confirmed or verified by the manufacturer during Promoter Registration procedure indicated in Fig. 16, or by the retailer during promoter registration procedure indicated in Fig. 19A.

On Page 220, amend the first and last paragraphs as follows:

As shown in Fig. 15K, the RDBMS table entitled PHYSICAL KIOSK in the illustrative embodiment of the present invention comprises primary information fields, namely: Physical Kiosk ID No.; Retail P-Store ID No.; Physical Kiosk HTTP Server URL; Assigned Static IP Address; P-Kiosk Aisle/Shelf Location; Physical Kiosk Access Password; CPI Request Service Status; Ad Display Service Status; Promotion Service Status; Kiosk Activity Index No. 1; Kiosk Activity Index No. 2; ... ; Kiosk Activity Index No. N; Status of Retailer's MIN filter; Cost of Kiosk Ad Spot on Monday; Cost of Kiosk Ad spot on Tues.; ... ; Cost of Kiosk Ad spot on Sunday; Cost of Kiosk Ad Promotion on Mon.; Cost of Kiosk Ad Promotion on Tues.; Cost of Kiosk Ad Promotion on Wed.;...; Cost of Kiosk Ad Promotion on Sunday; CPIR Request Service GUI Type; Ad Display service GUI Type; Promotion Service GUI Type; and Date of Last Record Update. This data table maintains information on each physical (bar code driven) CPI kiosk deployed within the system. While some of this information, such as, for example, the location of the kiosk (in which retailer's P-store), the types of information service enabled on the kiosk, the status of the retailer's MIN-filter (e.g. enabled or disabled), and the GUI type for advertisement and promotion display on the kiosk, are provided by the retailer at the time of kiosk registration/deployment indicated in Fig. 19A, the other informational items in this data table are provided by other sources within the system. For example, kiosk activity indices

(related to types of information requested from the retail kiosk by consumers) would be provided by the analytical scripts running on the Web-based information server supporting the kiosk, while the cost of advertising spots within the kiosk's Advertisement/Promotion Slot Queue 525 would be provided by analytical scripts running on the Web-based Kiosk Advertisement Marketing/Sales and Programming Server 507 whereas the cost of promotion spots within the kiosk's Advertisement/Promotion Slot Queue 525 would be provided by analytical scripts running on the Web-based Kiosk Promotion Marketing/Sales and Programming Server 508 , shown in Figs 11 and 13.

As shown Fig. 15L, the RDBMS table entitled RETAILER PHYSICAL STORE in the illustrative embodiment of the present invention comprises primary information fields, namely: Retailer ID No.; Address; City; State; Postal Code; Country; Retail P-store ID No.; Store Manager Identity; Store Manager Phone; Store Manager E-Mail; Regional Manager Identity; Regional Manager Phone; Regional Manager E-Mail; Number of Store Aisles; Number of Floors; Floor Plan Diagrams; Product Category/Shelf Maps; Available Internet Connectivity; Retailer/Manufacturer Relations; and Date of Last Record Update. This data table maintains information on each retailer's physical store registered with the system. Preferably, retailers will provide such information during the retailer registration mode indicated in Fig. 19 19A. Such information will be displayable to registered advertisers and promoters after they have generated custom kiosk advertising and promotion directories, as indicated in Figs. 31 through 34B and 39 through 40B, respectively. Preferably, such kiosk advertising and promotion directories will not only include specifications of available kiosks at which advertisements/promotions may be placed by the advertiser/promoter, with the approval of the retailer, but also descriptions (e.g. maps, floor plans and other specifications) of the retail store and aisle and shelf locations at which a particular physical CPI kiosk has been deployed. Such types of information can be used by the advertisers and promoters in making their decision on whether or not to place an UPN-indexed product advertisement or promotion slot order on a particular kiosk. Such information in conjunction with other information about a particular CPI kiosk can be useful in helping advertisers and promoters build and execute product advertising and promotional campaigns within a retailer store environment.

On Page 223, amend the last paragraph as follows:

As shown in Fig. 15V, the RDBMS table entitled VIRTUAL KIOSK in the illustrative embodiment of the present invention comprises a number of primary information fields, namely: Virtual Kiosk ID No.; Retail P-store or E-Store ID No.; Type of Virtual Kiosk; CPIR-enabling Applet ID No.; Licensed Internet Domain; Virtual Kiosk Licensee; Virtual Kiosk Enabling Password; E-Store Web-Page Location; CPI Request Service Status; AD Display Service Status; Promotion Service Status; Kiosk Activity Index No. 1; Kiosk Activity Index No. 2. ... ; Kiosk Activity Index No. N; Status of Retailer MIN Filter; Cost of Kiosk Ad Spot on Mon.; Cost of Kiosk Ad Spot on Tues.; Cost of Kiosk Promotion Spot on Mon.;...; Cost of Kiosk Promotion Spot on Sunday; URL for Accessing CPI Kiosk; and Date of Last Record Update. This data table maintains information on each virtual (Applet-driven) CPI kiosk deployed within the system. While some of this information, such as, for example, the location of the virtual kiosk (in which retailer's E-store), the types of information service enabled on the kiosk, the status of the retailer's MIN-filter (e.g. enabled or disabled), and the GUI type for advertisement and promotion display on the kiosk, are provided by the retailer at the time of kiosk registration/deployment indicated in Fig. 49 19A, the other informational items in this data table are provided by other sources within the system. For example, kiosk activity indices (related to types of information requested from the retail virtual kiosk by consumers) would be provided by the analytical scripts running on the Java-enabled Applet information server supporting the virtual kiosk, while the cost of advertising spots within the virtual kiosk's Advertisement/Promotion Slot Queue would be provided by analytical scripts running on the Web-based Kiosk Advertisement Marketing/Sales/Management and Programming Server 507, whereas the cost of promotion spots within the kiosk's Advertisement/Promotion Slot Queue 525 would be provided by analytical scripts running on the Web-based Kiosk Promotion Marketing/Sales/Management and Programming Server 508, shown in Figs 11 and 13.

On Page 224, amend the first and last paragraphs as follows:

As shown in Fig. 15W, the RDBMS table entitled CPIR-ENABLING APPLLET in the illustrative embodiment of the present invention comprises a number of primary information fields, namely: CIPR-Enabling Applet ID No.; Type of CPIR-Enabling Applet; URL of CPIR-

Enabling Applet BC; Virtual Kiosk ID No.; Virtual Kiosk Server Log; and Date of Last Record Update. This data table maintains information on each CPIR-enabling Applet supporting the GUI of each virtual CPI kiosk deployed within the system. Typically, such information is provided at the time that each retailer orders and configures a virtual CPI kiosk for deployment within its retail environment, as indicated in Fig. 19 19A.

As shown in Fig. 15X, the RDBMS table entitled RETAILER E-STORE in the illustrative embodiment of the present invention comprises a number of primary information fields, namely: Retailer ID No.; Address; City; State; Postal Code; Country; Retail E-Store ID No.; E-Store Manager Identity; E-Store Manager Phone; E-store Manager E-Mail; E-Store WWW Site Map; Retailer/Manufacturer Relations; and Date of Last Record Update. This data table maintains information on each retailer's virtual store registered with the system. Preferably, the retailer will provide such information during the retailer registration mode indicated in Fig. 19 19A. Such information will be displayable to registered advertisers and promoters after they have generated custom kiosk advertising and promotion directories, as indicated in Figs. 31 through 34B and 39 through 40B, respectively. Preferably, such kiosk advertising and promotion directories will not only include specifications of available virtual kiosks at which advertisements/promotions may be placed by the advertiser/promoter, with the approval of the retailer, but also descriptions (e.g. site maps, virtual floor plans and other specifications) of the virtual retail store and virtual aisle and shelf locations at which a particular virtual CPI kiosk has been deployed. Such types of information can be used by the advertisers and promoters in making their decision on whether or not to place an UPN-indexed product advertisement or promotion slot order on a particular virtual kiosk. Such information in conjunction with other information about a particular virtual CPI kiosk can be useful in helping advertisers and promoters build and execute product advertising and promotional campaigns within a particular electronic retailer's (e-tailors) store environment.

On Page 231, amend the first paragraph as follows:

As illustrated in Fig. 16A, the web-based manufacturer registration and UPN/TM/PD/URL link creation, management and transport server 505 is made accessible to manufacturers (e.g. marketing, brand and/or product managers, and other support personnel)

through a Web-based GUI (~~e.g., located on the WWW at <http://www.brandkeysystems.com/brandkeyrequest/manufacturers>~~) 574, using any Web-enabled client computer subsystem 13. An exemplary GUI for this subsystem 501 is illustrated in Fig. 16A. As shown therein, the GUI 574 for subsystem 501 can be realized as a Netscape-style three frame display framework, comprising: a thin upper horizontal display frame 575 containing a graphical image indicating the name of the WWW site (e.g. "BrandKey Create™ System For Manufacturers") at which subsystem 501 is located; a thin horizontal control frame 576 having a set of buttons 577A through 577E for enabling the above-described functions provided by subsystem 501; and a large information display frame 578 for displaying HTML-encoded pages used to construct the graphical interfaces associated with the various functions provided by this subsystem.

On Page 232, amend the second paragraph as follows:

By selecting function button 577E, the manufacturer may update any ~~registration~~ registration related information as required by changes of circumstance and/or situation.

On Page 239, amend the first paragraph as follows:

In the illustrative embodiment, these functions are supported by the CPI kiosk ordering/configuration/deployment/management server 506 which is made accessible to retailers (e.g. regional, district and/or store managers) through a Web-based GUI (~~e.g., located on the WWW at <http://www.brandkeysystems.com/brandkeyrequest/retailers>~~), using any Web-enabled client computer subsystem 13. An exemplary GUI for this subsystem 506 is illustrated in Fig. 20A. As shown therein, the GUI for subsystem 506 can be realized as a Netscape-style three frame display framework 580, comprising: a thin upper vertical display frame 581 containing a graphical image indicating the name of the WWW site (e.g. "BrandKey Request Administration For Retailers") at which subsystem 506 is located; a thin horizontal control frame having a set of buttons 583A-583G for enabling the various functions provided by subsystem 506; and a large information display frame 584 for displaying HTML-encoded pages used to construct the graphical interfaces associated with the various functions provided by this subsystem.

On Page 246, amend the second paragraph as follows:

In the illustrative embodiment, these functions are supported by the CPI kiosk ordering/configuration/deployment/management server 506 which is made accessible to manufacturers (e.g. marketing, brand and/or product managers, and other support personnel) through a Web-based GUI (e.g. ~~located on the WWW at~~ <http://www.brandkeysystems.com/brandkeyrequest/manufacturers>), using any Web-enabled client computer subsystem. An exemplary GUI 610 for subsystem 506 in this mode of operation is illustrated in Fig. 20B. As shown therein, the GUI for subsystem 506 can be realized as a Netscape-style three frame display framework, comprising: a thin upper horizontal display frame 611 containing a graphical image indicating the name of the WWW site (e.g. "BrandKey Request For Manufacturer") at which subsystem 506 is located; a thin horizontal control frame 612 having a set of buttons 612A through 612D for enabling the various functions provided by subsystem 506; and a large information display frame 613 for displaying HTML-encoded pages used to construct the graphical interfaces associated with the various functions provided by this subsystem 504.

On Page 301, amend the last paragraph as follows:

From the consumer's point of view, most information services designed therefor will be accessed within a registered retailer's store, and/or on the WWW. However, the WWW site (e.g. ~~<http://www.brandkeysystems.com/consumers>~~) providing consumers access to consumer-related information services provided by subsystem 504 will also contain consumer-related directories specifying the location of physical and virtual CPI kiosks deployed within the system. Based on such directories, the consumer can quickly access physical and/or virtual CPI kiosks of interest and seek UPN/TM/PD/URL link records on consumer products in which the consumer is interested.

On Page 251, amend the first paragraph as follows:

In the illustrative embodiment, these functions are supported by the product Kiosk Advertisement Marketing/Sales/Management (http) server 507 which is made accessible to advertisers (e.g. manufacturer and/or retailer marketing personnel, advertising agents, etc.) through a Web-based GUI (e.g. ~~located on the WWW at~~ <http://www.brandkeysystems.com/brandkeydisplay/advertisers>), using any Web-enabled client computer subsystem 13. An exemplary GUI for this subsystem 502 is illustrated in Fig. 30. As shown therein, the GUI 620 for subsystem 502 can be realized as a Netscape-style three frame display framework, comprising: a thin upper horizontal display frame 621 containing a graphical image indicating the name of the WWW site (e.g. "BrandKey Display™ Subsystem For Advertisers") at which subsystem 502 is located; a thin vertical control frame 622 having a set of buttons 622A-622G for enabling the various functions provided by subsystem 502; and a large information display frame 623 for displaying HTML-encoded pages used to construct the graphical interfaces associated with the various functions supported by this subsystem.

On Page 254, amend the first paragraph as follows:

Equipped with such kiosk advertising directories, the advertiser is then selects the Build Kiosk Advertising Campaign Mode of subsystem 502 by selecting function button 622E, in which the certified/registered advertiser places ad spot orders to be run on a particular subnetwork of retailer-authorized CPI kiosks indicated in the custom-displayed kiosk advertising directories described above. In this mode of information service, a different GUI will be displayed to the advertiser to enable the construction of a registered kiosk advertising campaign, which will be assigned a unique Kiosk Advertising Campaign Number. Notably, each multi-media advertisement spot ordered to run in a particular advertisement campaign can be realized in variety of different ways and to have a variety of different formats, but is expected that particular standards and preferences will naturally evolve in the industry as the present invention is commercially realized. For example, the "advertisement spot" creation and development tools taught herein in connection with the retail-based network of retailer-operated product promotion/advertisement kiosks shown in Fig. 3A18, and disclosed supra. can be used to create suitable product advertisement and product advertisement spots (i.e. digital content) which can be linked into the UPN/TM/PD/URL RDBMS 9', and ultimately delivered to consumers in retail

environments through the use of multi-mode CPI kiosks of the present invention. Notably, other techniques can be used to create advertising spot content for linking within the UPN/TM/PD/URL RDBMS 9' and display on multi-mode CPI kiosks connected to retailer LANs or WANs as disclosed, for example, in Figs. 3A17 and 3A18 3A16 and 3A17.

On Page 256, amend the last paragraph as follows:

In the illustrative embodiment, these functions are supported by the product Kiosk Promotion Marketing/Sales/Management (http) server 508 which is made accessible to promoters (e.g. retailer marketing personnel, manufacturer marketing personnel, etc.) through a Web-based GUI (e.g. located on the WWW at ~~http://www.brandkeysystems.com/brandkeypromote/promoters~~), using any Web-enabled client computer subsystem. An exemplary GUI for this subsystem 503 is illustrated in Fig. 36. As shown therein, the GUI 630 for subsystem 503 can be realized as a Netscape-style three frame display framework, comprising: a thin upper horizontal display frame 631 containing a graphical image indicating the name of the WWW site (e.g. "BrandKey Promote™ For Promoters") at which subsystem 503 is located; a thin horizontal control frame 632 having a set of buttons 633A through 633G for enabling the various functions provided by subsystem 503; and a large information display frame 634 for displaying HTML-encoded pages used to construct the graphical interfaces associated with the various functions supported by this subsystem.

On Page 262, amend the third paragraph as follows:

In the Internet-based system of Fig. 9, access to each of the four Internet-based subsystem components 501, 502, 503 and 504 described in detail above can be achieved by providing (i) a "system home-page" for the overall functionally-integrated system 2' shown in Figs. 9A through 13, and (ii) individual "subsystem home-pages" for each of the four separate subsystems thereof, wherein hyperlinks are provided between each subsystem home-page and the system home-page. ~~For example, the system home page of for functionally-integrated system (e.g. referred to as the BrandKey™ consumer product marketing, merchandising and education/information system) can be located at a URL such as http://www.brandkeysystems.com, whereas the subsystem home~~

~~page for subsystem 501 can be located at a URL such as <http://www.brandkeycreate.com>;~~
~~whereas the subsystem home page for subsystem 502 can be located at a URL such as~~
~~<http://www.brandkeydisplay.com>, whereas the subsystem home page for subsystem 503 can be~~
~~located at a URL such as <http://www.brandkeypromote.com>;~~
~~and whereas the subsystem home~~
~~page for subsystem 504 can be located at a URL such as <http://www.brandkeyrequest.com>.~~

On Page 262, amend the last paragraph as follows:

In ~~Fig. 43~~ 43A and 43B, the system architecture is shown for an integrated product marketing, merchandising, and education/information system constructed in accordance with the principles of invention disclosed in the system shown in Figs. 9 through 42C described above. Common system components shown in Figs. 9-13 are referenced in ~~Fig. 43~~ 43A and 43B using like reference numerals.